

# The Work Disincentive Effects of the Social Security Disability Insurance Program

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# Social Security Disability Insurance

- Largest cash-transfer in the US for disabled workers
  - 9.7 million disabled workers and dependents
  - \$118 billion in benefit expenditures
- From 1984 to 2004, disabled worker beneficiaries increased from 2.6 to 5.9 million
  - Musculoskeletal and mental illness
  - Increased female labor force participation
  - Increased benefit generosity

# Labor Supply Effects

- Application for Benefits
  - Contemporaneous effect
    - Unable to engage in substantial, gainful activity
    - 5 month lag between disability onset and benefit eligibility
  - Long-term effect
    - Depreciation of labor skills and health
- Receipt of Benefits
  - Contemporaneous effect
    - Unable to engage in substantial, gainful activity
    - Exception: Ticket to Work
  - Long-term effect
    - Depreciation of labor skills and health

# Study Objectives

- Bound the effects of disability application and receipt on labor outcomes
- The effect of disability receipt
  - Bound estimated from rejected applicants
    - Health: SSDI screening ensures that rejected applicants are healthier than accepted applicants
    - Labor force attachment: Determined by observables
  - Strategy inspired by Bound (1989)
    - Bound, Burkhauser, and Nichols (2003); Chen and van der Klaaw (2008); Maestas and Yin (2008); and von Wachter, Song, and Manchester (2010)

# Study Objectives

- The effect of disability application
  - Bound estimated from disabled non-applicants
    - Health: Determined by observables
    - Labor Force Attachment: Determined by observables

# Contribution

- First study to bound the effect of disability application on labor market outcomes
  - Addresses concern that the labor-supply bound for accepted applicants, estimated from rejected applicants, may be underestimated
- Dynamic relationship of disability and earnings
  - The effect of health on earnings
  - The effect of disability application and receipt on earnings

# Data

- Survey of Income and Program Participation
  - Panels 1990, 1991, 1992, 1993, and 1996
  - Topical Module 2: Disability histories
  - Merged to SSA administrative data
    - Numident: Dates of death
    - Detailed Earnings Record: Longitudinal earnings
    - SSR: SSI application and receipt
    - Master Beneficiary Record: application and receipt dates for SSDI and retirement benefits

# Data

- Sample restrictions
  - Administrative-matched data
  - Males
  - Ages 30 to 48
  - Disabled respondents
    - Whose disabilities occur within five years of the SIPP survey
    - Who report the time of disability onset



**Table 1**

Data Summary by Disability Severity: Males ages 30 to 48

	Non-Disabled	Partially Disabled	Totally Disabled
High School	59.2 (0.30)	68.2 (1.8)	62.4 (3.2)
College	30.2 (0.28)	13.1 (1.3)	7.6 (1.8)
White	86.3 (0.21)	84.8 (1.4)	74.0 (2.9)
Married	71.3 (0.28)	61.3 (1.9)	59.7 (3.3)
SSDI Insured	87.5 (0.20)	84.3 (1.5)	79.6 (2.8)
Dead within 7 Years	1.4 (0.07)	3.2 (0.69)	5.6 (1.5)
Musculoskeletal	-	53.8 (1.9)	48.1 (3.3)
Mental	-	3.7 (0.74)	3.6 (1.2)
Accident	-	59.6 (1.9)	59.2 (3.3)
Working	-	90.6 (1.1)	91.0 (1.9)
Work Accident	-	42.4 (1.9)	42.7 (3.3)
Disability Application	4.3 (0.12)	29.6 (1.8)	68.4 (3.1)
Disability Receipt	2.1 (0.09)	19.0 (1.5)	52.5 (3.3)
Observations	26706	656	227

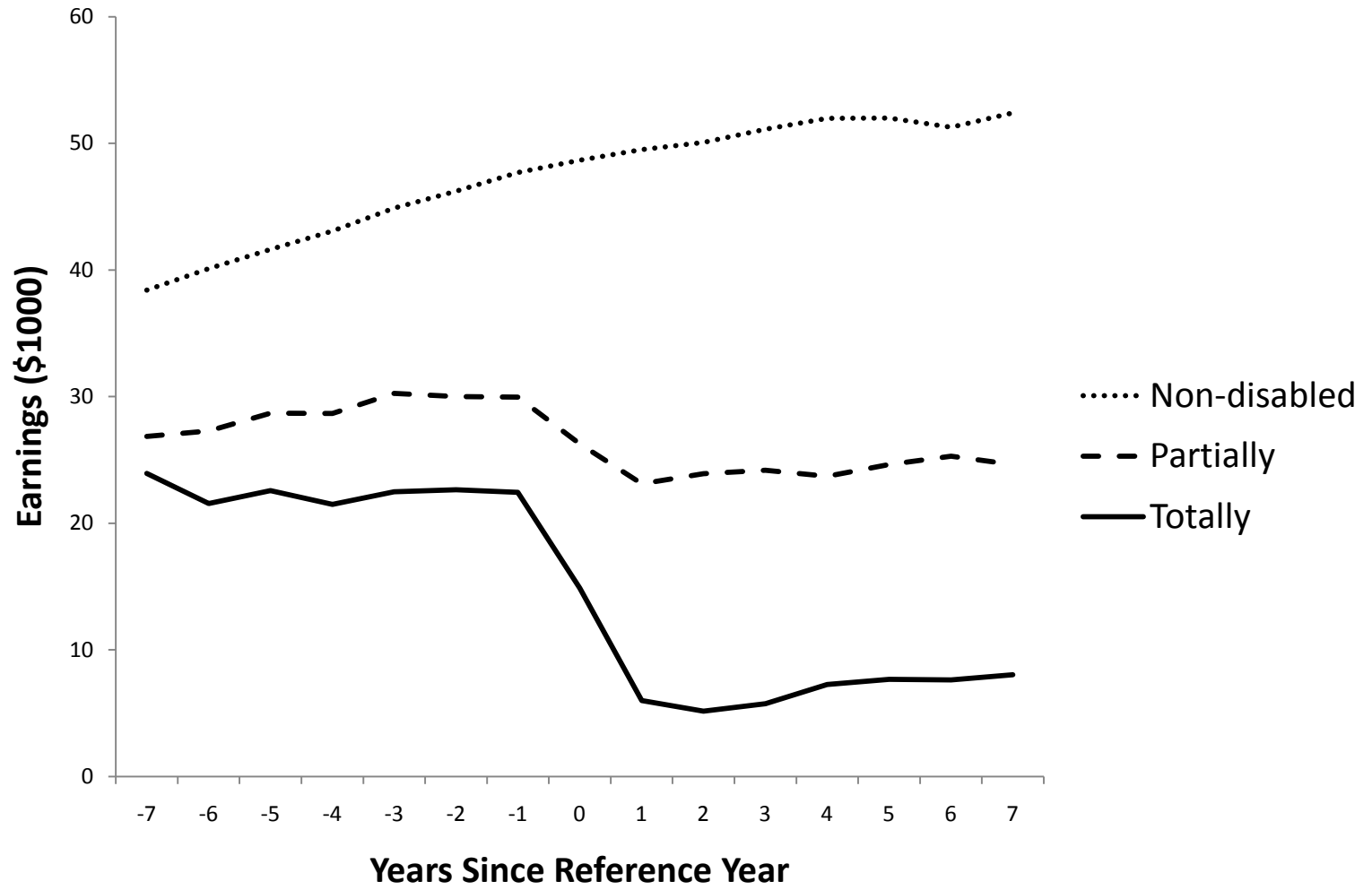


Figure 1A: Earnings

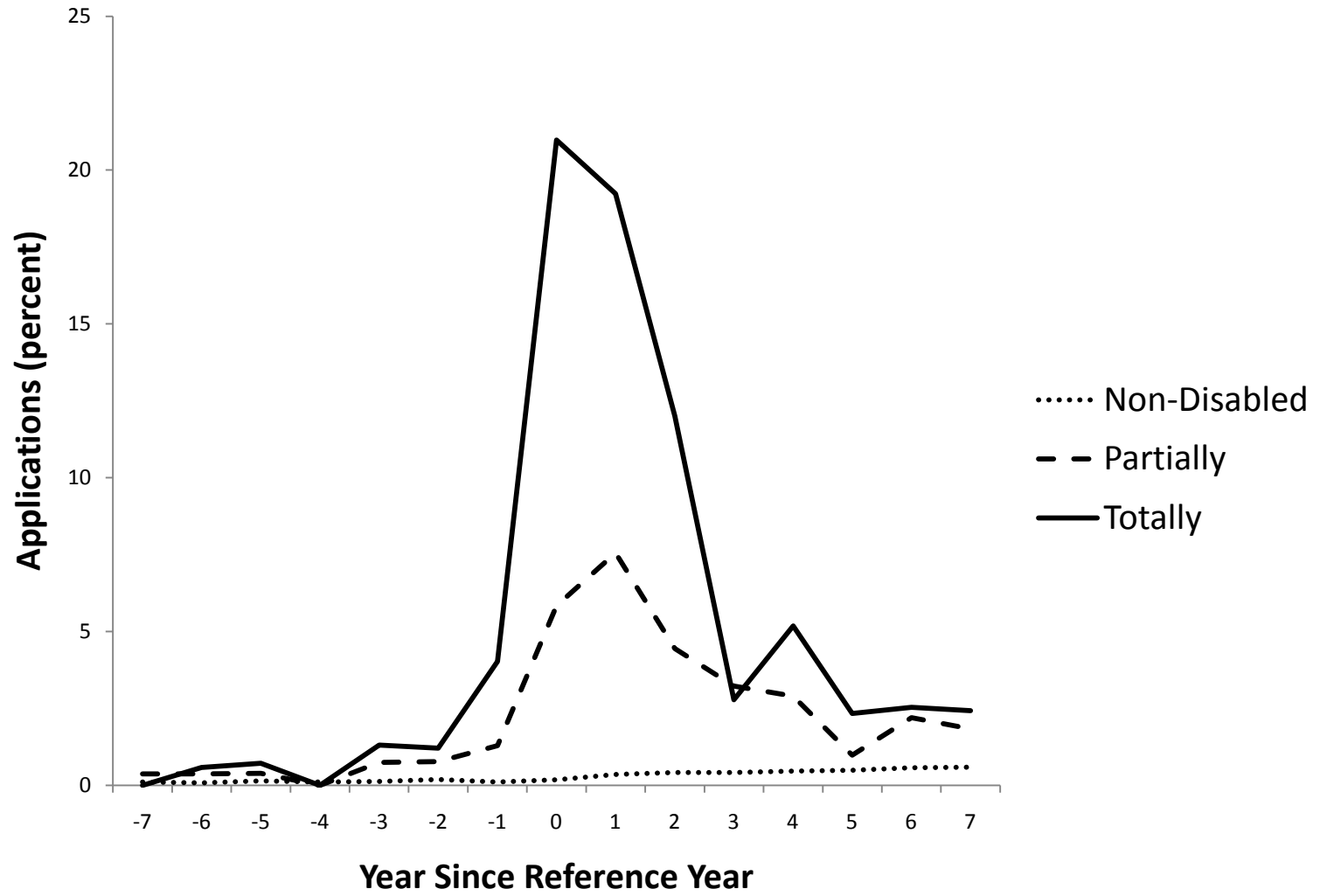


Figure 1B: Applications

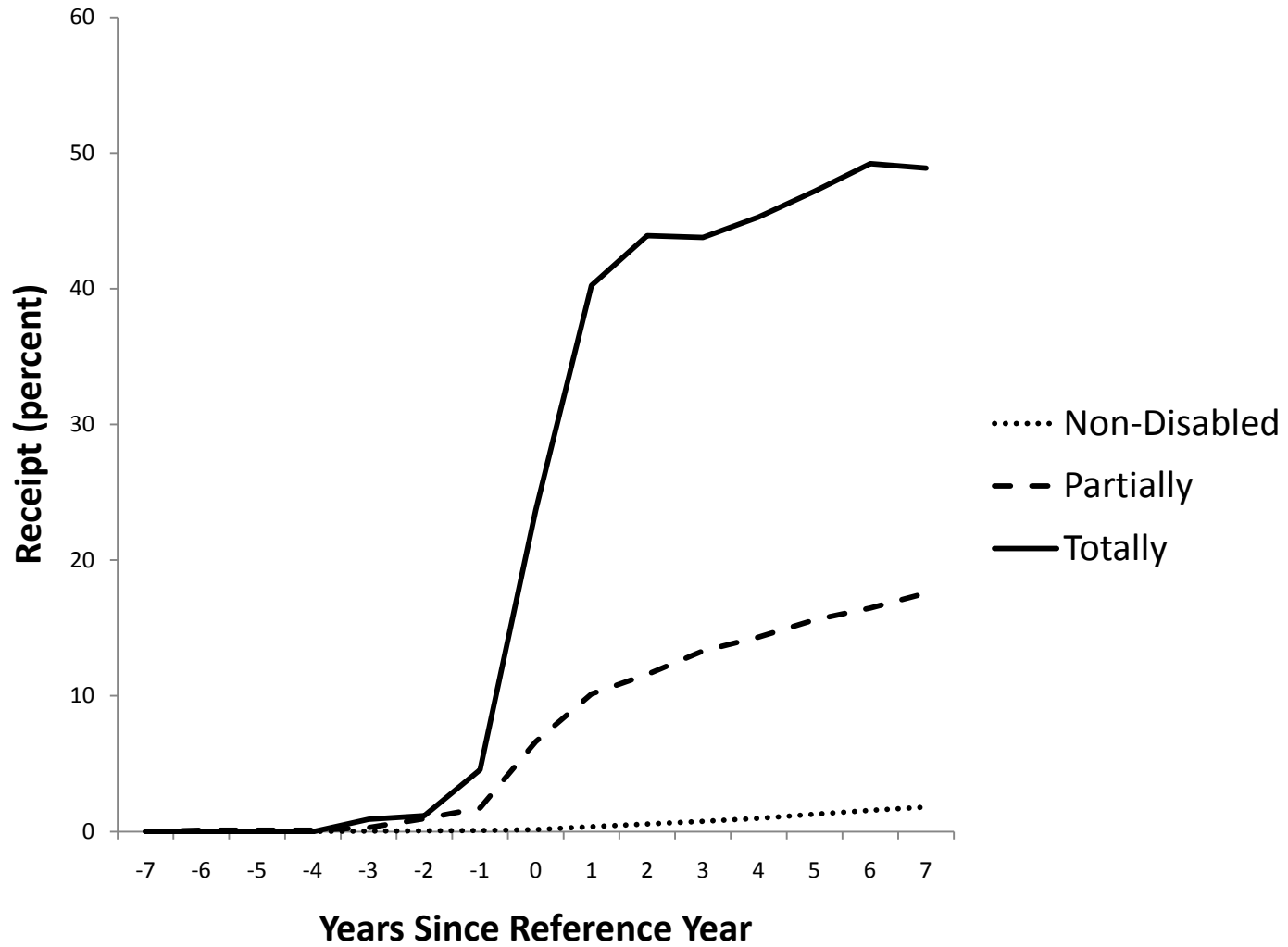


Figure 1C: Receipt

**Table 2**

Data Summary by Disability Application and Receipt Status: Disabled Males ages 30 to 48

	Accepted	Rejected	Non-Applicants
High School	63.4 (3.1)	63.9 (4.7)	68.8 (2.0)
College	8.9 (1.8)	6.5 (2.4)	14.0 (1.5)
White	76.1 (2.7)	76.4 (4.1)	85.8 (1.5)
Married	55.5 (3.2)	56.9 (4.8)	64.1 (2.1)
SSDI Insured	78.5 (2.6)	82.3 (3.7)	84.0 (1.6)
Totally Disabled	49.8 (3.2)	34.9 (4.6)	13.9 (1.5)
Dead within 7 Year	8.8 (1.8)	3.4 (1.8)	1.6 (0.55)
Musculoskeletal	35.9 (3.0)	59.0 (4.8)	58.6 (2.1)
Mental	6.6 (1.6)	0.7 (0.82)	2.9 (0.73)
Accident	43.2 (3.1)	65.0 (4.6)	65.9 (2.1)
Working	83.3 (2.4)	93.3 (2.4)	93.6 (1.1)
Work Accident	28.8 (2.9)	53.1 (4.8)	46.7 (2.2)
Observations	249	107	527

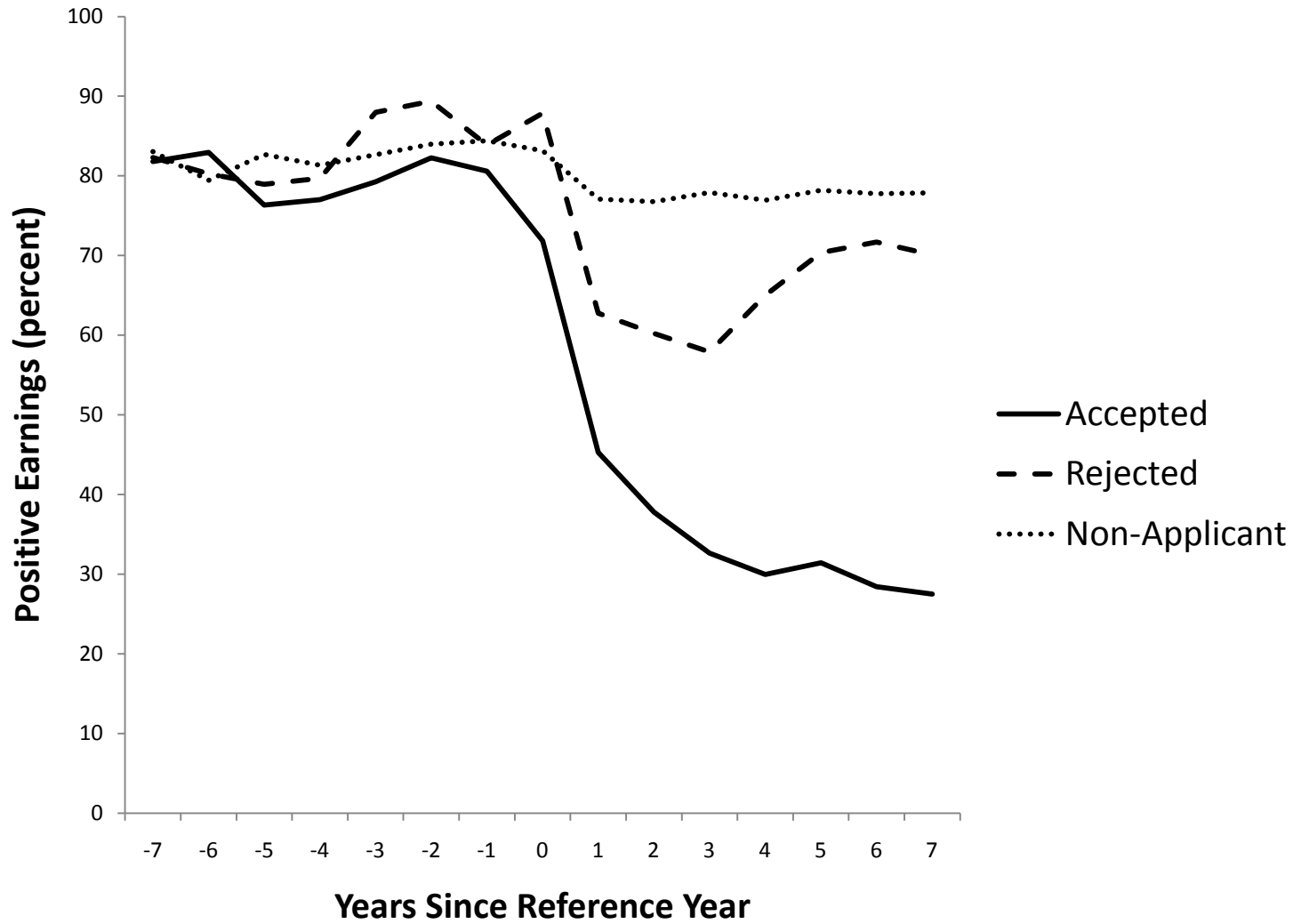


Figure 2A: Positive Earnings

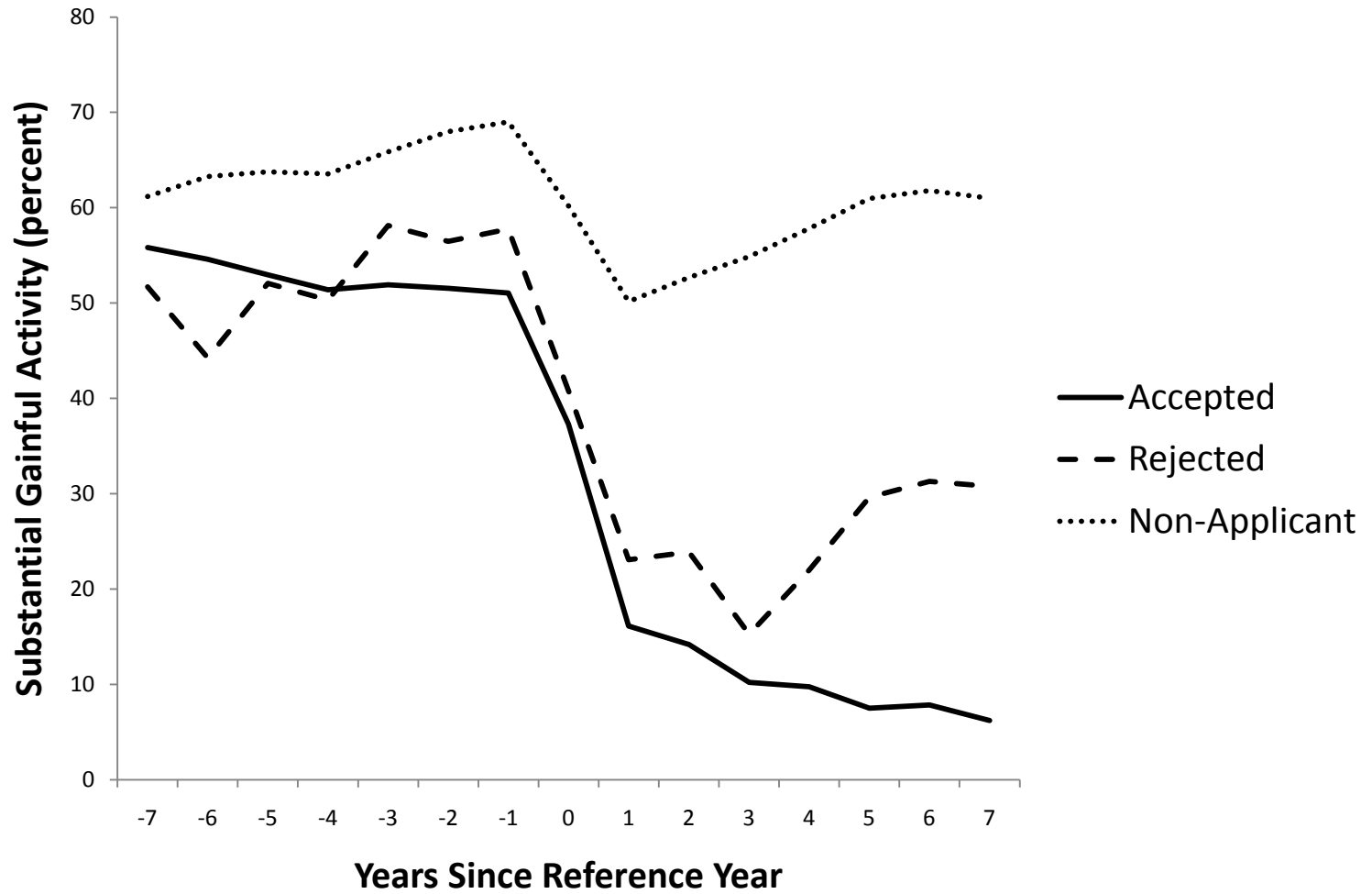


Figure 2B: Annualized Substantial Gainful Activity

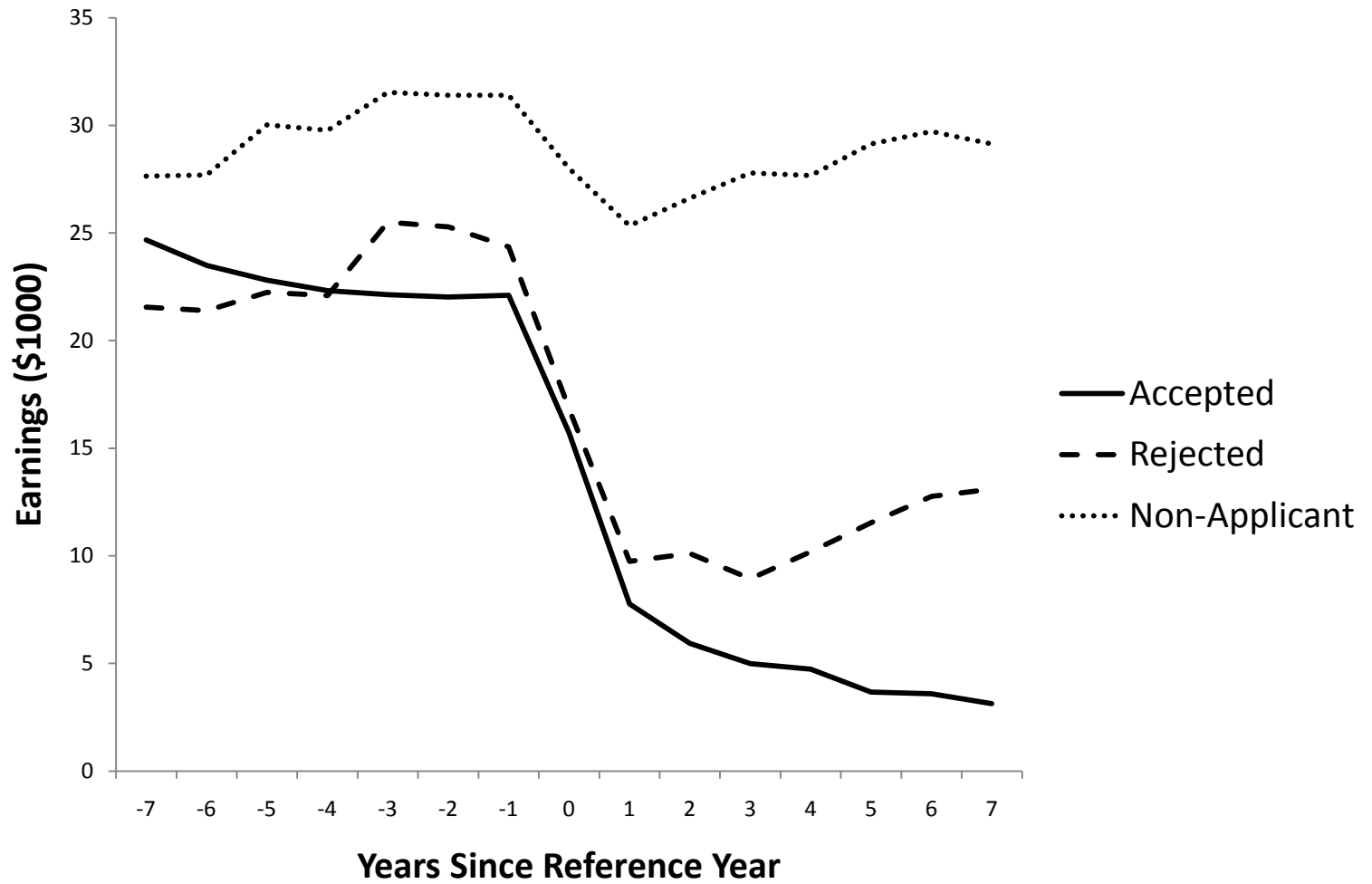


Figure 2C: Earnings



# Summary

- Disability and earnings
  - To some extent, SSDI application and receipt can explain the dynamics of disability and earnings
- Work Disincentives of SSDI
  - According to the figure, 60 percent of rejected applicants engage in SGA
  - Regression adjusted, 50 percent of rejected applicants engage in SGA

# Additional Work

- Separate analysis for
  - Totally versus partially disabled
  - Medical conditions
- Micro-level model of the disability application decision
  - Emphasis on health-related factors on the decision to apply
    - Likelihood of award
    - Object measures of health